WHAT IS CLAIMED IS:

1. A method for handing off a call between networks, comprising:

monitoring a quality of a first link between a mobile station and a wireless local area network (WLAN) when the mobile station is actively connected with the WLAN on a call;

monitoring a quality of a second link between the mobile station and a cellular network when the mobile station is actively connected with the WLAN on the call; and

handing off the call from the WLAN to the cellular network when the quality of the first link is less than a handoff trigger threshold for a drop count duration and when the quality of the second link is greater than a minimum cellular link quality threshold.

2. The method of Claim 1, further comprising preventing a handoff of the call from the cellular network to the WLAN until expiration of a dwell timer as long as the quality of the second link remains above the minimum cellular link quality threshold.

3. The method of Claim 2, further comprising:

monitoring the quality of the first link between the mobile station and the WLAN when the mobile station is actively connected with the cellular network on the call; and

handing off the call from the cellular network to the WLAN when the quality of the first link is greater than the handoff trigger threshold plus a hysteresis margin for a pick-up count duration.

4.   The method of Claim 3, further comprising tuning a control to change a value of the hysteresis margin.

5.   The method of Claim 3, further comprising tuning a control to change a value of the drop count duration.

6.   The method of Claim 3, further comprising tuning a control to change a value of the dwell timer.

7.   The method of Claim 1, wherein the WLAN communicates using IEEE 802.11 protocol.

8.   The method of Claim 1, wherein monitoring a quality of a first link between a mobile station and a WLAN comprises monitoring a WLAN metric.

9.   The method of Claim 8, wherein the WLAN metric comprises one of a group of metrics consisting of a received signal strength, a signal to noise ration, a signal quality, an error vector magnitude, a bit error rate and a packet error rate.

10.   The method of Claim 8, wherein the WLAN metric comprises a quality of service parameter.

11.   The method of Claim 10, wherein the quality of service parameter comprises packet jitter, delay or WLAN collision error rate.

12. The method of Claim 1, wherein monitoring a quality of a first link between a mobile station and a WLAN comprises monitoring a plurality of WLAN metrics.

5   13. The method of Claim 12, wherein monitoring a plurality of WLAN metrics comprises determining a vector comprising a plurality of WLAN metrics.

14. The method of Claim 12, wherein monitoring a
10   plurality of WLAN metrics comprises determining a scalar value comprising a function of a plurality of WLAN metrics.

15. The method of Claim 1, wherein monitoring a
15   quality of a second link between the mobile station and a cellular network comprises monitoring a cellular metric.

16. The method of Claim 15, wherein the cellular metric comprises one of a group of metrics consisting of
20   a received signal strength, a bit error rate and a frame error rate.

17. The method of Claim 1, wherein the drop count duration comprises a first number of samples out of a
25   second number of samples taken at a sample interval.

18. The method of Claim 17, wherein the sample interval comprises 250 milliseconds.

19. A system for handing off a call between networks, comprising a mobile station comprising a controller operable to:

monitor a quality of a first link between the mobile station and a wireless local area network (WLAN) when the mobile station is actively connected with the WLAN on a call;

monitor a quality of a second link between the mobile station and a cellular network when the mobile station is actively connected with the WLAN on the call; and

hand off the call from the WLAN to the cellular network when the quality of the first link is less than a handoff trigger threshold for a drop count duration and when the quality of the second link is greater than a minimum cellular link quality threshold.

20. The system of Claim 19, wherein the controller is further operable to prevent a handoff of the call from the cellular network to the WLAN until expiration of a dwell timer as long as the quality of the second link remains above the minimum cellular link quality threshold.

21. The system of Claim 20, wherein the controller is further operable to:

monitor the quality of the first link between the mobile station and the WLAN when the mobile station is actively connected with the cellular network on the call; and

hand off the call from the cellular network to the WLAN when the quality of the first link is greater than

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the handoff trigger threshold plus a hysteresis margin
for a pick-up count duration.

22. The system of Claim 21, wherein the mobile
station further comprises a tuning knob operable to tune
the hysteresis margin to change its value.

23. The system of Claim 19, wherein the WLAN
communicates using IEEE 802.11 protocol.

24. The system of Claim 19, wherein a controller
operable to monitor a quality of a first link between a
mobile station and a WLAN comprises a controller operable
to monitor a WLAN metric.

25. The system of Claim 24, wherein the WLAN metric
comprises one of a group of metrics consisting of a
received signal strength, a signal to noise ration, a
signal quality, an error vector magnitude, a bit error
rate and a packet error rate.

26. The system of Claim 24, wherein the WLAN metric
comprises a quality of service parameter.

27. The system of Claim 26, wherein the quality of
service parameter comprises packet jitter, delay or WLAN
collision error rate.

28. The system of Claim 19, wherein a controller
operable to monitor a quality of a first link between a
mobile station and a WLAN comprises a controller operable
to monitor a plurality of WLAN metrics.

29. The system of Claim 28, wherein a controller operable to monitor a plurality of WLAN metrics comprises a controller operable to determine a vector comprising a plurality of WLAN metrics.

30. The system of Claim 28, wherein a controller operable to monitor a plurality of WLAN metrics comprises a controller operable to determine a scalar value comprising a function of a plurality of WLAN metrics.

31. The system of Claim 19, wherein a controller operable to monitor a quality of a second link between the mobile station and a cellular network comprises a controller operable to monitor a cellular metric.

32. The system of Claim 31, wherein the cellular metric comprises one of a group of metrics consisting of a received signal strength, a bit error rate and a frame error rate.

33. The system of Claim 19, wherein the drop count duration comprises a first number of samples out of a second number of samples taken at a sample interval.

34. The system of Claim 33, wherein the sample interval comprises 250 milliseconds.

35. A system for handing off a call between networks, comprising:

means for monitoring a quality of a first link between a mobile station and a wireless local area network (WLAN) when the mobile station is actively connected with the WLAN on a call;

means for monitoring a quality of a second link between the mobile station and a cellular network when the mobile station is actively connected with the WLAN on the call; and

means for handing off the call from the WLAN to the cellular network when the quality of the first link is less than a handoff trigger threshold for a drop count duration and when the quality of the second link is greater than a minimum cellular link quality threshold.

36. The system of Claim 35, further comprising means for preventing a handoff of the call from the cellular network to the WLAN until expiration of a dwell timer as long as the quality of the second link remains above the minimum cellular link quality threshold.

37. The system of Claim 36, further comprising:

means for monitoring the quality of the first link between the mobile station and the WLAN when the mobile station is actively connected with the cellular network on the call; and

means for handing off the call from the cellular network to the WLAN when the quality of the first link is greater than the handoff trigger threshold plus a hysteresis margin for a pick-up count duration.

38. The system of Claim 35, wherein the WLAN communicates using IEEE 802.11 protocol.

39. The system of Claim 35, wherein means for monitoring a quality of a first link between a mobile station and a WLAN comprises means for monitoring a WLAN metric.

40. The system of Claim 39, wherein the WLAN metric comprises one of a group of metrics consisting of a received signal strength, a signal to noise ration, a signal quality, an error vector magnitude, a bit error rate and a packet error rate.

41. The system of Claim 35, wherein means for monitoring a quality of a second link between the mobile station and a cellular network comprises means for monitoring a cellular metric.

42. The system of Claim 41, wherein the cellular metric comprises one of a group of metrics consisting of a received signal strength, a bit error rate and a frame error rate.

43. Software embedded in a computer readable medium comprising code operable to:

monitor a quality of a first link between a mobile station and a wireless local area network (WLAN) when the
5   mobile station is actively connected with the WLAN on a call;

monitor a quality of a second link between the mobile station and a cellular network when the mobile station is actively connected with the WLAN on the call;
10   and

hand off the call from the WLAN to the cellular network when the quality of the first link is less than a handoff trigger threshold for a drop count duration and when the quality of the second link is greater than a
15   minimum cellular link quality threshold.

44. The medium of Claim 43, wherein the code is further operable to prevent a handoff of the call from the cellular network to the WLAN until expiration of a
20   dwell timer as long as the quality of the second link remains above the minimum cellular link quality threshold.

45. The medium of Claim 44, wherein the code is
25   further operable to:

monitor the quality of the first link between the mobile station and the WLAN when the mobile station is actively connected with the cellular network on the call; and

30   hand off the call from the cellular network to the WLAN when the quality of the first link is greater than

the handoff trigger threshold plus a hysteresis margin for a pick-up count duration.

46. The medium of Claim 43, wherein the WLAN communicates using IEEE 802.11 protocol.

47. The medium of Claim 43, wherein code operable to monitor a quality of a first link between a mobile station and a WLAN comprises code operable to monitor a WLAN metric.

48. The medium of Claim 47, wherein the WLAN metric comprises one of a group of metrics consisting of a received signal strength, a signal to noise ration, a signal quality, an error vector magnitude, a bit error rate and a packet error rate.

49. The medium of Claim 43, wherein code operable to monitor a quality of a second link between the mobile station and a cellular network comprises code operable to monitor a cellular metric.

50. The medium of Claim 49, wherein the cellular metric comprises one of a group of metrics consisting of a received signal strength, a bit error rate and a frame error rate.

51. A method for handing off a call between networks, comprising:

monitoring a quality of a first link between a mobile station and a cellular network when the mobile
5   station is actively connected with the cellular network on a call;

monitoring a quality of a second link between the mobile station and a wireless local area network (WLAN) when the mobile station is actively connected with the
10   cellular network on the call; and

handing off the call from the cellular network to the WLAN when the quality of the first link is less than a handoff trigger threshold for a drop count duration and when the quality of the second link is greater than a
15   minimum WLAN link quality threshold.

52. The method of Claim 51, further comprising preventing a handoff of the call from the WLAN to the cellular network until expiration of a dwell timer as
20   long as the quality of the second link remains above the minimum WLAN link quality threshold.

53. The method of Claim 52, further comprising:

monitoring the quality of the first link between the
25   mobile station and the cellular network when the mobile station is actively connected with the WLAN on the call; and

handing off the call from the WLAN to the cellular network when the quality of the first link is greater
30   than the handoff trigger threshold plus a hysteresis margin for a pick-up count duration.

54.   The   method   of   Claim   53,   further   comprising
tuning   a   control   to   change   a   value   of   the   hysteresis
margin.

5   55.   The   method   of   Claim   53,   further   comprising
tuning   a   control   to   change   a   value   of   the   drop   count
duration.

56.   The   method   of   Claim   53,   further   comprising
10   tuning a control to change a value of the dwell timer.

57.   The   method   of   Claim   51,   wherein   the   WLAN
communicates using IEEE 802.11 protocol.

15   58.   The   method   of   Claim   51,   wherein   monitoring   a
quality of a first link between a mobile station and a
cellular network comprises monitoring a cellular metric.

59.   The   method   of   Claim   51,   wherein   monitoring   a
20   quality of a second link between the mobile station and a
WLAN comprises monitoring a WLAN metric.